

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number  
WO 2005/068973 A1

(51) International Patent Classification<sup>7</sup>: G01N 21/17

(21) International Application Number:  
PCT/IL2005/000038

(22) International Filing Date: 12 January 2005 (12.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/535,832 13 January 2004 (13.01.2004) US

(71) Applicant (for all designated States except US): GLUCON INC. [US/US]; 644 COLLEGE AVENUE, BOULDER, CO 80302 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PESACH, Benny [IL/IL]; 18 SHIR HASHIRIM STREET, 48072 ROSH-HA'AYIN (IL).

(74) Agents: FENSTER, Paul et al.; P.O. BOX 10256, FENSTER & COMPANY, INTELLECTUAL PROPERTY 2002 LTD., 49002 PETACH TIKVA (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

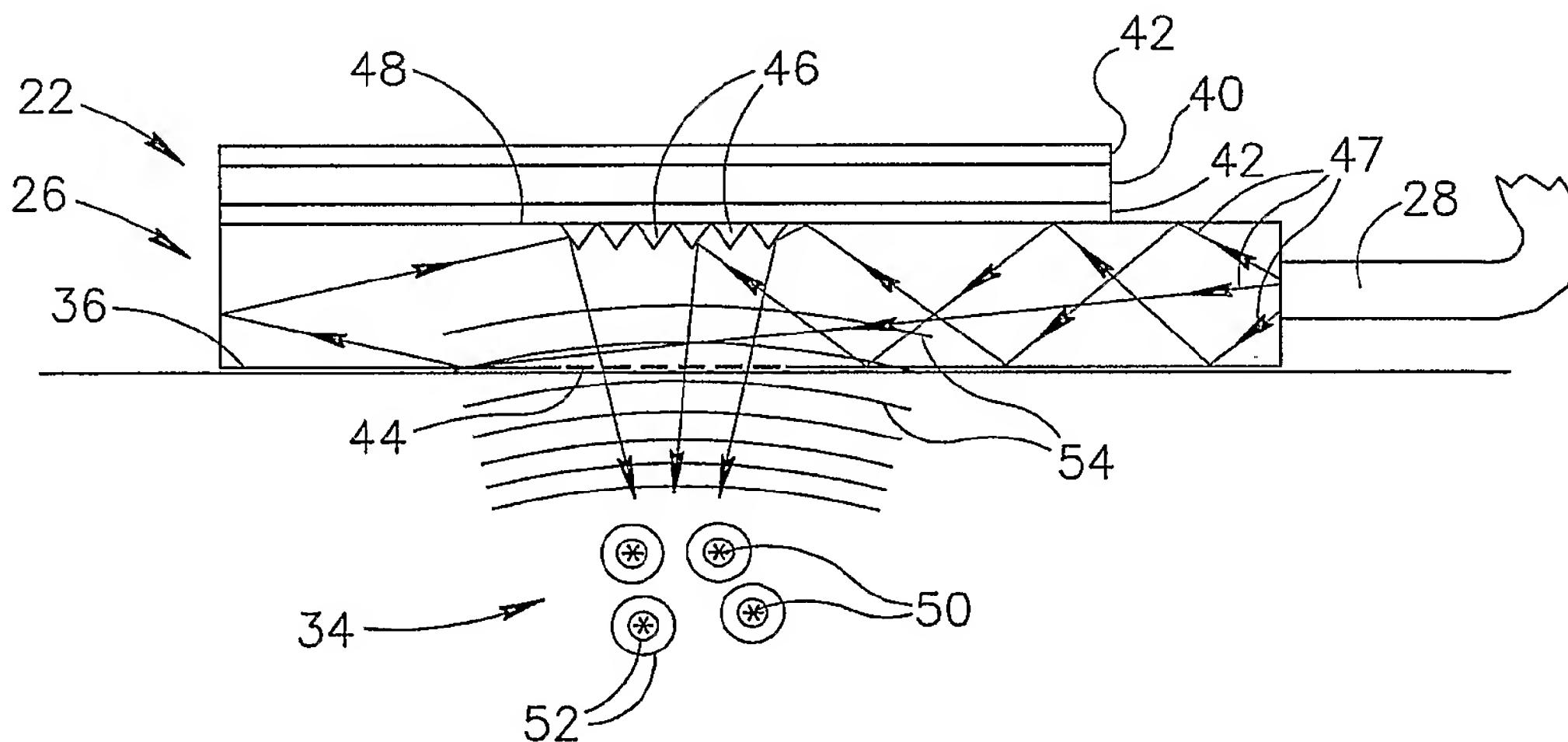
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PHOTOACOUSTIC SENSOR



WO 2005/068973 A1

(57) Abstract: Apparatus for stimulating photoacoustic waves in a region of a body and generating signals responsive to the stimulated waves comprising: a light source (27) that provides light that stimulates photoacoustic waves (54) in the region; a light pipe (26) having an output aperture (80) and at least one input aperture, which light pipe receives the light from the light source at the at least one input aperture and transmits the received light to illuminate the region from the output aperture; and at least one acoustic transducer (22) that generates signals responsive to acoustic energy from the photoacoustic waves that is incident on the optical output aperture.